

PATTERN MASK WITH FEATURES TO  
MINIMIZE THE EFFECT OF ABERRATIONS

Abstract of the Disclosure

[0039] A semiconductor pattern mask that might  
5 otherwise exhibit three-fold symmetry, which could give  
rise to distorted semiconductor features in the  
presence of three-leaf aberration in the optical system  
used to expose a semiconductor wafer through the mask,  
is altered to break up the three-fold symmetry without  
10 altering the semiconductor features that are formed.  
This accomplished by adding features to the mask that  
break up the symmetry. One way of achieving that  
result is to make the added features of "sub-  
resolution" size that do not produce features on the  
15 exposed wafer. Another way of achieving that result is  
to change existing features that do form structures in  
such a way (e.g., with optical elements) that changes  
the relative phase, amplitude or other characteristic  
of light transmitted through those features.

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